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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,373	09/27/2001	Hiroaki Nakamura	1110-0288P	9448

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EXAMINER

MILIA, MARK R

ART UNIT	PAPER NUMBER
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2625

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/08/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/08/2007.

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mailroom@bskb.com

Office Action Summary	Application No. 09/963,373	Applicant(s) NAKAMURA, HIROAKI	
	Examiner Mark R. Milia	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment was received on 12/20/06 and has been entered and made of record. Currently, claims 1-21 are pending.

Response to Arguments

2. Applicant's arguments, presented during the December 7, 2006 interview and on pages 8-9 of the remarks, filed 12/20/06, with respect to the rejection(s) of claim(s) 1 and 17 under 35 U.S.C. 103(a) have been fully considered and are persuasive.

Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter

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which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1 sets forth a limitation, which in part states, "a first adjustment unit for adjusting said image processing conditions in said image processing unity by comparing said finished-state-predicting image with said at least one selected reference image". The "comparison" is not believed to be described in the specification in such a way as to reasonably allow a person of ordinary skill in the art to make and use the invention. It is believed that the specification lacks description as to what is actually being compared in relation to the processing conditions of the above stated images.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 17-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 17 recites, on page 6 of the amendment to the claims filed 12/20/06, the limitation "the image" in lines 9 and 10. There is insufficient antecedent basis for this limitation in the claim. It is not clear as to what image is being referred to and therefore is indefinite. The examiner interprets "the image" to be either the reference images or the finished-state-predicting image for the basis of the following rejection.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-4, 6-13, and 15-21 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5874988 to Gu.

Regarding claim 1, Gu discloses an image processing apparatus comprising a display (see Fig. 1), an image processing unit for subjecting an image supplied from an image data supply source to image processing based on image processing conditions, thereby obtaining a finished-state-predicting image (see Fig. 1, column 3 line 54-column 4 line 3, column 12 lines 24-35, and column 20 lines 24-38), a memory for storing at least one image (see Figs. 1 "150" and column 9 lines 42-48), a registration unit for registering said at least one reference in the memory as a reference image (see column 4 lines 13-24 and 55-61, column 12 lines 24-48, column 14 lines 59-65, and column 17 lines 5-11 and 62-65), a display unit for selecting at least one reference image from said at least one reference image and simultaneously displaying on said display said at least one selected reference image together with said finished-state- predicting image of the image processed by said image processing unit (see Fig. 1, column 5 lines 11-19, column 9 lines 19-22, column 18 lines 20-51, and column 20 line 55-column 21 line 3), and a first adjustment unit for adjusting said image processing conditions in said image

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processing unit by comparing said finished-state-predicting image with said at least one selected reference image displayed on said display in such a manner that an image processing result of said finished-state-predicting image using adjusted image processing conditions matches to said at least one selected reference image (see column 3 line 62-column 4 line 33, column 15 lines 56-61, column 17 line 62-column 18 line 51, and column 20 line 22-column 21 line 17).

Regarding claim 17, Gu discloses an image processing apparatus comprising: a display having a single display screen (see Fig. 1, column 5 lines 11-19, column 9 lines 19-22, column 18 lines 20-51, and column 20 line 55-column 21 line 3), an image processing unit for subjecting an image supplied from an image data supply source to image processing based on image processing conditions (see Fig. 1, column 3 line 54-column 4 line 3, column 12 lines 24-35, and column 20 lines 24-38), a manipulation system (see Figs. 1, column 3 line 62-column 4 line 33, column 15 lines 56-61, column 17 line 62-column 18 line 51, and column 20 line 22-column 21 line 17), a reference image display controller having a memory for storing at least one image and a registration unit for registering said at least one reference image in the memory, wherein the manipulation system selects at least one image as a reference image from said at least one reference image and simultaneously displaying on said single display screen said at least one selected reference image together with a finished-state-predicting image of the image processed by said image processing unit (see Fig. 1, column 4 lines 13-24 and 55-61, column 5 lines 11-19, column 9 lines 19-22 and 42-48, column 12 lines 24-48, column 14 lines 59-65, column 17 lines 5-11 and 62-65 column 18 lines 20-

51, and column 20 line 55-column 21 line 3), and a condition setting section (see Fig. 1 and column 12 lines 24-48), said condition setting section including a setup subsection for setting image processing conditions and for calculating image characteristic amounts for the image (see Fig. 1 column 7 lines 25-35, column 9 lines 49-54, and column 12 lines 24-48), a key adjustment subsection for verifying the image with the at least one reference image (see column 12 lines 24-48 and column 17 lines 5-11), and a parameter coordinating subsection for receiving image processing conditions from the setup subsection, said condition setting section adjusting said image processing conditions in said image processing unit by using said at least one selected reference image displayed on said display and said finished-state-predicting image in such a manner that an image processing result of said finished-state-predicting image using adjusted image processing conditions matches to said at least one selected reference image (see column 3 line 62-column 4 line 33, column 15 lines 56-61, column 17 line 62-column 18 line 51, and column 20 line 22-column 21 line 17).

Regarding claim 2, Gu further discloses a moving unit for moving said second reference image displayed on said display (see column 9 lines 19-22 and column 18 lines 32-51).

Regarding claim 3, Gu further discloses at least one of a reference image enlargement/reduction unit for enlarging or reducing said second reference image and a reference image partial display unit for partially displaying said second reference image (see column 18 lines 32-51).

Regarding claim 4, Gu further discloses an output unit for outputting said selected reference image stored in said memory as a hard copy and a second adjustment unit for adjusting color and density of said selected reference image stored in said memory (see Fig. 1 "130", column 7 lines 28-35, column 12 lines 24-48, column 15 lines 3-44, and column 15 line 66-column 17 line 11).

Regarding claim 6, Gu further discloses wherein said image processing unit also processes said finished-state-predicting image by using image processing conditions of said at least one reference image registered the memory (see column 3 line 62-column 4 line 33, column 15 lines 56-61, column 17 line 62-column 18 line 51, and column 20 line 22-column 21 line 17).

Regarding claim 7, Gu further discloses wherein a color and a density residual of a calibration of an output device to which the image processed in said image processing unit is output are reflected on each of said at least one and said selected reference images (see column 15 lines 3-44, column 15 line 66-column 17 line 11, and column 20 line 55-column 21 line 18).

Regarding claim 8, Gu further discloses wherein an output device to which the image processed in said image processing unit is output and an output form used are selectable and said first adjustment unit modifies image processing conditions for said finished-state- predicting image in accordance with the output device and output form selected (see column 7 line 16-column 8 line 67).

Regarding claim 9, Gu further discloses wherein said registration unit registers image processing conditions for said finished-state-predicting image as image

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processing conditions for said at least one reference image (see column 3 line 62-column 4 line 33, column 15 lines 56-61, column 17 line 62-column 18 line 51, and column 20 line 22-column 21 line 17).

Regarding claim 10, Gu further discloses wherein said display unit displays said second reference image and said finished-state-predicting image in a partially overlapped state on said display and indicates by color or density a magnitude of at least one of a color difference and a difference in an image structure index between the second reference image and the finished-state- predicting image in the partially overlapped state (see Fig. 1, column 5 lines 11-19, column 9 lines 19-22, column 18 lines 20-51, and column 20 line 55-column 21 line 3).

Regarding claim 11, Gu further discloses a unit for designating specific regions in said second reference image and said finished-state-predicting image displayed on said display, wherein said display unit indicates by color or density a magnitude of at least one of a color difference and a difference in an image structure index between said designated regions (see column 15 lines 19-63).

Regarding claim 12, Gu further discloses wherein said image structure index is a power spectrum (see column 8 lines 11-19).

Regarding claim 13, Gu further discloses wherein said memory stores said at least one reference image by colorimetric values (see column 8 lines 11-19, column 9 lines 55-58, column 12 lines 24-43, and column 13 lines 1-13).

Regarding claim 15, Gu further discloses wherein said memory stores said at least one reference image by values on a standard color space (see column 4 lines 13-18).

Regarding claim 16, Gu further discloses wherein said standard color space is a sRGB trichromatic system (see column 8 lines 11-19, column 9 lines 55-58, column 12 lines 24-43, and column 13 lines 1-13).

Regarding claim 18, Gu further discloses wherein the adjusted image processing conditions are used for the image processing by the image processing unit, thereby obtaining a new finished-state-predicting image, and the display control unit displays the new finished-state-predicting image and said at least one selected reference image on said display (see column 3 line 62-column 4 line 33, column 15 lines 56-61, column 17 line 62-column 18 line 51, and column 20 line 22-column 21 line 17).

Regarding claim 19, Gu further discloses wherein said at least one selected reference image is an image subjected to image processing of a first original image prior to the registering and the first original image is different from a second original image of the image to be processed in the image processing unit (see column 3 line 62-column 4 line 33, column 15 line 66-column 18 line 51, and column 20 line 22-column 21 line 17)

Regarding claim 20, Gu further discloses wherein said at least one selected reference image is an image subjected to image processing prior to the registering and is different from the image to be processed and supplied from the image data supply

source (see column 3 line 62-column 4 line 33, column 15 line 66-column 18 line 51, and column 20 line 22-column 21 line 17).

Regarding claim 21, Gu further discloses wherein said at least one selected reference image and said finished-state-predicting image are different from each other in image content therein (see column 3 line 62-column 4 line 10, and column 12 lines 24-48, reference shows that the images can be any kind, referring to content, of image).

Claim Rejections - 35 USC § 103

10. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gu as applied to claim 1 above, and further in view of Cookingham (US 6658139).

Gu discloses a registration unit for registering reference images and a display for displaying the reference images (see Fig. 1, column 4 lines 13-24 and 55-61, column 12 lines 24-48, column 14 lines 59-65, and column 17 lines 5-11 and 62-65).

Gu does not disclose expressly wherein said registration unit registers a plurality of reference images for each group corresponding to an image scene and said display unit displays said plurality of reference images for said each group.

Cookingham discloses wherein said registration unit registers a plurality of reference images for each group corresponding to an image scene and said display unit

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displays said plurality of reference images for said each group (see column 4 lines 26-29 and column 6 lines 24-42).

Gu & Cookingham are combinable because they are from the same field of endeavor, processing and comparison of digital images.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the registration of reference images into groups, as described by Cookingham, with the system of Gu.

The suggestion/motivation for doing so would have been to provide enhanced comparison and increase the efficiency of selecting a reference image by grouping the images based on similar image characteristics.

Therefore, it would have been obvious to combine Cookingham with Gu to obtain the invention as specified in claim 5.

12. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gu as applied to claim 13 above, and further in view of Inoue (US 5844542).

Gu discloses wherein said colormetric values are RGB values (see column 8 lines 11-19, column 9 lines 55-58, column 12 lines 24-43, and column 13 lines 1-13).

Gu does not disclose expressly wherein said colorimetric values are XYZ values in a CIE1931 standard colorimetric system or $L^*a^*b^*$ values in a CIE1976 $L^*a^*b^*$ perceived color space.

Inoue discloses wherein said colorimetric values are XYZ values in a CIE1931 standard colorimetric system or $L^*a^*b^*$ values in a CIE1976 $L^*a^*b^*$ perceived color space (see column 5 lines 6-15).

Gu & Inoue are combinable because they are from the same field of endeavor, processing and comparison of digital images.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the XYZ or $L^*a^*b^*$ colorimetric values, as described by Inoue, with the system of Gu.

The suggestion/motivation for doing so would have been provide for manipulation of color values is a plurality of color spaces to increase overall efficiency. Gu states that histograms can be displayed in RGB or other color spaces and Inoue shows other color spaces that are well known and commonly used in the art and therefore it would have been obvious to one of ordinary skill in the art to substitute XYZ or $L^*a^*b^*$ colorimetric values for RGB values.

Therefore, it would have been obvious to combine Inoue with Gu to obtain the invention as specified in claim 14.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Milia whose telephone number is (571) 272-7408. The examiner can normally be reached M-F 8:00am-4:00pm.

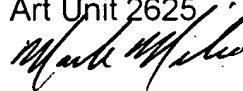
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler M. Lamb can be reached at (571) 272-7406. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MRM

Mark R. Milia
Examiner
Art Unit 2625



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